

REMARKS

By this Amendment, claims 3, 5-13, 15-17 and 19-33 are amended, and claims 34-36 are added. Claims 14 and 18 remain in the application. Thus, claims 3 and 5-36 are active in the application. Reexamination and reconsideration of the application are respectfully requested.

Minor editorial revisions have been made to the substitute specification to correct a typographical error and to clarify that the term "protocol" as used in the present application connotes a data transmission mode. No new matter has been added.

The Applicants requested the Examiner to acknowledge the Applicants' claim of foreign priority and the receipt of the copies of the certified copies of the foreign priority documents in the April 18, 2005 Amendment. However, the Applicants note that the Examiner again failed to acknowledge, in item 12 on the Office Action Summary form, the Applicants' claim of foreign priority based on JP 11-14532 and JP 11-49488, and the receipt of the copies of the certified copies of the foreign priority documents.

The Form PCT/IB/304 was submitted to the Office with this national stage application on September 22, 2000 to indicate that certified copies of the foreign priority documents were indeed submitted to the International Receiving Office as evidence that a proper claim for foreign priority was made in the corresponding international application, PCT/JP00/00307. Furthermore, as evidenced by the Notification of Missing Requirements mailed on October 25, 2000 and the Notice of Acceptance mailed on December 1, 2000, the Office has received the foreign priority documents of the present application. For the Examiner's convenience, a courtesy copy of each of the Form PCT/IB/304, the Notification of Missing Requirements and the Notice of Acceptance were submitted with the April 18, 2005 Amendment.

Accordingly, the Applicants again respectfully request the Examiner to acknowledge the Applicants' claim of foreign priority based on the above-identified priority applications, and the receipt of the copies of the certified copies of the foreign priority documents.

In item 2 on page 2 of the Office Action, claims 3, 5-9 and 19-33 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the

invention. This rejection is respectfully traversed for the following reasons.

Furthermore, the Applicants respectfully submit that this rejection is inapplicable to new claims 34-36 for the following reasons. New claims 34-36 have been added in favor of claims 1-2 and 4, respectively, which were cancelled in the April 18, 2005 Amendment.

As described beginning at line 33 on page 21 of the substitute specification, a “target” is defined in the present invention as an object to be controlled. The “target” is controlled by receiving a message and performing processing according to the received message. In addition, a “controller” is defined as a device for controlling the object to be controlled. Further, a “consumer” is defined as a device for receiving data from the target, and an “initiator” is defined as a device for creating a connection based on a second protocol (data transmission mode) between the target and the consumer.

As described beginning at line 6 on page 22 of the substitute specification, the present invention provides that an arbitrary combination of a target, a controller, a consumer, and an initiator may coexist in one audio/video/information device in the audio-video-computer system (AVC system) of the present invention. Alternatively, the present invention provides that only one of a target, a controller, a consumer or an initiator may exist in one device. Further, the present invention provides that one device in the AVC system may include plural controllers, plural targets, plural consumers, and plural initiators.

Accordingly, the present invention provides that one device in the AVC system may include, for example, only a controller and a target; two or more controllers without a target, consumer or an initiator; each of a target, a controller, a consumer and an initiator; or only a target. Thus, each device in the AVC system of the present invention can include any combination of:

- (1) a controller,
- (2) a target,
- (3) a consumer, and
- (4) an initiator.

Furthermore, using the above definitions, at least one of the devices in the AVC system may include a target as an object to be controlled, and a controller for controlling the target in its own device or another device that includes a target.

This feature of the present invention is illustrated in Figure 1, for example. The example AVC system of Figure 1 illustrates a TV 21, a remote controller 22 for the TV 21, a PC 23 (personal computer), a DVD 31, a DVC 32 (digital video system digital VTR), a VTR 33 (VHS system digital VTR), a DVC movie 34 (digital video system digital movie), and a STB 35 (set-top box). Each of these devices is connected by one transmission line 1.

In the example of Figure 1, the TV 21 and the PC 23 each include a target and a controller. The DVD 31, the DVC 32, the DVHS 33, the DVC movie 34 and the STB 35 are each described in the example of Figure 1 as including a target. Thus, the TV 21 and the PC 23, by including a controller, are each operable to control a target, such as their own target comprised therein, or another target, such as the DVD 31, the DVC 32, the DVHS 33, the DVC movie 34 and the STB 35. Furthermore, the present invention provides that any of the devices of Figure 1 may include the above-described consumer and initiator.

Independent claims 3, 5-9 and 19-33 have each been amended to more clearly recite this feature of the present invention. Furthermore, new claims 34-36 each clearly recite that this feature of the present invention. For instance, claims 3 and 5 have each been amended to recite that each of the at least two devices includes at least one target and at least one controller. Furthermore, claims 6-7, for example, have each been amended to recite that each of the at least two devices includes at least one controller, at least one controller, a consumer and an initiator. Similar revisions have been made to the remaining independent claims.

The Applicants respectfully submit that one skilled in the art would understand, in view of the disclosure of the specification, the inventions as recited in independent claims 3, 5-9 and 19-36 since the present invention clearly provides, as described above, that the devices in the AVC system can include any combination of a controller, a target, a consumer and an initiator. Furthermore, the Applicants respectfully submit that independent claims 3, 5-9 and 19-36 positively recite the elements which the devices of the network comprise.

In response to the Examiner's assertion that the claims seem to refer to only one controller and one target, it is because the controllers, targets, consumers and initiators in

each device each function according to the recited language of claims 3, 5-9 and 19-36, and therefore, each controller, target, consumer and initiator in the claims is only required to be singularly defined in order for one skilled in the art to understand the present invention.

Furthermore, in response to the Examiner's assertion that that claims 3 and 5-9 cannot be directed to a network control system because there is no main computer controller, the Applicants submit that the present invention does not require a main computer controller to control the network. Claims 3 and 5-9 and new claims 34-36 clearly define that the devices themselves control data transmission between other devices based on their constituent elements.

In view of the amendments to claims 3, 5-9 and 19-33 and foregoing remarks, the Applicants respectfully submit that claims 3, 5-9 and 19-33, as well as new claims 34-36, are clearly definite by particularly pointing out and distinctly claiming the subject matter which the Applicants regard as the invention.

Accordingly, the Applicants respectfully request the Examiner to withdraw the rejection of claims 3, 5-9 and 19-33 under 35 U.S.C. § 112, second paragraph.

In item 4 on page 3 of the Office Action, claims 3 and 5-33 were rejected under 35 U.S.C. § 102(e) as being anticipated by Rostoker et al. (U.S. 5,872,784) (hereinafter "Rostoker").

Without intending to acquiesce to this rejection, independent claims 3, 5-9 and 19-33 have been amended to more clearly illustrate the marked differences between the present invention and the applied references. Accordingly, the Applicants respectfully submit that the present invention is clearly patentable over Rostoker for the following reasons. Furthermore, the Applicants respectfully submit that this rejection is inapplicable to new claims 34-36 for the following reasons.

Independent claims 3, 5-9 and 19-33 have each been amended and new claims 34-36 have been drafted to clarify the following features of the present invention.

- (1) A controller, a target, an initiator and a consumer are each connected to one transmission line.
- (2) There are two kinds of data transmission modes in the one transmission line.

(3) In the one transmission line, other data transmission modes are controlled by one of the plurality of data transmission modes.

With regard to feature (1) above, independent claims 3, 5 19-23 and 26-28 each recite that the controller and target are each connected to one transmission line. Independent claims 6-9, 24-25 and 29-33 each recite that the controller, the target, the consumer and the initiator are each connected to one transmission line. New independent claims 34-36 each recite that the consumer, the target and the initiator are each connected to one transmission line. Independent claims 3, 5-9 and 19-36 each recite features (2) and (3) above.

In contrast to the present invention, Rostoker discloses a host computer 302 which controls a network 301 via a network apparatus 300. Figure 42 of Rostoker shows an example of a multi-protocol router. In particular, Rostoker discloses an ATM/Ethernet/FDDI multi-protocol router.

However, as clearly shown in Figure 42, the multi-protocol router has an individual ATM input/output line, an individual Ethernet input/output line and an individual FDDI input/output line. That is, the multi-protocol router of Rostoker has an input/output line for each different protocol. Accordingly, the multi-protocol router of Rostoker has a plurality of transmission lines that are respectively provided for the plurality of protocols.

In contrast to Rostoker, claims 3, 5-9 and 19-36 each recite one transmission line for two different data transmission modes. The present invention describes IEEE 1394 as an example of one transmission line for two different kinds of data transmission modes (asynchronous and isochronous). The use of the term “protocol” in the present invention is for multiple data transmission modes, e.g., asynchronous and isochronous, in one transmission line. Moreover, an Ethernet communication line, as disclosed in Rostoker, does not have two different kinds of data transmission modes as recited in claims 3, 5-9 and 19-36.

Accordingly, it is clear that the multi-protocol router of Rostoker cannot correspond to the inventions of claims 3, 5-9 and 19-36 since the multi-protocol router of Rostoker uses a plurality of different transmission lines for each different protocol,

whereas the inventions of claims 3, 5-9 and 19-36 utilize only one transmission lines for two different data transmission modes.

The Examiner also contends that Rostoker discloses a network apparatus 300 (Figure 3) having a communication link by means of an instruction bus (Figure 3, 340), a PCI bus (Figure 3, 342), or a data bus (Figure 3, 337) between the CPU and other components. However, each of these communication links are separate and physically distinct from each other.

Accordingly, the above communication links of Rostoker clearly do not amount to a controller and a target each being connected to one transmission line, as recited in claims 3, 5 19-23 and 26-28; a controller, a target, a consumer and an initiator each being connected to one transmission line, as recited in claims 6-9, 24-25 and 29-33; and a consumer, a target and an initiator each being connected to one transmission line, as recited in new claims 34-36.

The Examiner also contends that Rostoker discloses that a conversion between an ATM protocol and an MPEG protocol is an example of the use of a plurality of protocols. However, the data conversion is between the ATM protocol used in the transmission line 300 and the MPEG protocol used in the transmission line 331 as show in Figure 2. Therefore, Rostoker discloses the use of a plurality of transmission lines, but does not disclose or suggest a plurality of data transmission modes in one transmission line, as recited in claims 3, 5-9 and 19-36. In contrast to Rostoker, claims 3, 5-9 and 19-36, as described above, each recite using a plurality of data transmission modes in one transmission line.

For at least the foregoing reasons, Rostoker clearly does not disclose or suggest features (1)-(3) above as recited in claims 3, 5-9 and 19-36. Therefore, claims 3, 5-9 and 19-36 are clearly not anticipated by Rostoker since Rostoker fails to disclose or suggest each and every limitation of claims 3, 5-9 and 19-36.

Furthermore, it is submitted that the clear distinctions discussed above are such that a person having ordinary skill in the art at the time the invention was made would not have been motivated to modify Rostoker in such as manner as to result in, or otherwise render obvious, the present invention as recited in claims 3, 5-9 and 19-36.

Therefore, it is submitted that the claims 3, 5-9 and 19-36, as well as claims 10-18 which depend therefrom, are clearly allowable over the prior art as applied by the Examiner.

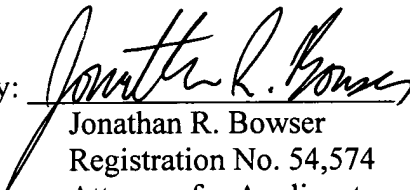
In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is respectfully solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

A fee and a Petition for a two-month Extension of Time are filed herewith pursuant to 37 CFR § 1.136(a).

Respectfully submitted,

Yoshifumi YANAGAWA et al.

By: 
Jonathan R. Bowser
Registration No. 54,574
Attorney for Applicants

JRB/nrj
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
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